

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C.

)	
In The Matter Of)	
Implementation of the Local Competition)	
Provisions in the Telecommunications Act)	CC Docket No. 96-98
of 1996)	
)	
Interconnection Between Local Exchange)	
Carriers and Commercial Mobile Radio)	CC Docket No. 95-185
Service Providers)	
)	

COMMENTS OF NEW ENGLAND VOICE & DATA, LLC

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May 26, 1999

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COMMENTS OF NEW ENGLAND VOICE & DATA, LLC

New England Voice & Data, LLC (“NEVD” or the “Company”), through its attorneys, hereby files these Comments in response to the Commission’s Second Further Notice of Proposed Rulemaking in the above-captioned dockets. NEVD is offering, or plans to offer in the near future, voice and data services in the Bell Atlantic ("BA") North (former NYNEX) region. As a relatively recent start-up company, NEVD does not typically involve itself in FCC proceedings, not out of a lack of interest, but rather out of a lack of resources. Nevertheless, because of the critical importance of the availability of dark fiber as an unbundled network element ("UNE") to NEVD's business plan, NEVD is submitting their comments urging the Commission to add dark fiber to the minimum list of network elements that ILECs must provide under the Act.

I. INTRODUCTION

In the Local Competition Order, the Commission declined to address the unbundling of ILEC dark fiber because it lacked a sufficient record.¹ However, the Commission committed to reviewing the matter and revising its rules as necessary.² NEVD provides herein the information sufficient for the Commission to determine that ILEC dark fiber should be made available as an unbundled network element.

Currently, NEVD has access to dark fiber as a UNE at interim TELRIC prices in Massachusetts, New Hampshire and Rhode Island. NEVD is actively using such access to unbundled dark fiber to install SONET architecture in those states that will enable NEVD to serve customers in small cities and surrounding suburban areas. To accomplish this, NEVD is purchasing and installing switches, aggressively collocating in a large number of BA central offices, connecting such central offices by leasing unbundled dark fiber and energizing such unbundled dark fiber with NEVD electronics.

By allowing such unbundled access to BA's unused dark fiber under reasonable terms and conditions, including TELRIC pricing, state commissions have lowered the entry barriers to facilities-based entry, especially those associated with entry in smaller sized cities and surrounding suburban areas that have not yet seen the benefits of competition. If unbundled dark fiber were not available to NEVD, it would not be economically feasible to provide switched local exchange service in most of these areas.

¹ Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket Nos. 96-98 and 95-185, *First Report and Order*, 11 FCC Rcd 15499 at ¶ 450 (1996) ("Local Competition Order").

² Id.

A number of states outside the BA North region have also ruled that dark fiber is a UNE.³ Unfortunately, ILECs, including BA, are seeking to overturn state decisions. For example, BA has appealed the New Hampshire PUC's ruling, has threatened to appeal the Massachusetts decision, and does not appear to recognize a Rhode Island Arbitration Order affirming an arbitrator's finding that dark fiber is a UNE (even though BA never contested to the arbitrator's finding at the PUC hearing). As a result, there is uncertainty

³ *Petition of MCI for Arbitration Under the Telecommunications Act of 1996*, Docket No. 6865-U (GA PSC, Dec. 17, 1996); *MCI Telecommunications Corporation: Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Central Telephone Company of Illinois*, 96-AB-009 (Illinois CC, Feb. 5, 1997); *MCI Telecommunications Corp. v. BellSouth Telecommunications, Inc.*, No. Civ.A. 97-76, 1999 WL 166183 (E.D. Ky., March 11, 1999); *Consolidated Petitions of New England Telephone and Telegraph d/b/a Bell Atlantic-Massachusetts et al.*, DPU/DTE 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-J (Mass. DPU/DTE, March 19, 1999); *Consolidated Petitions of AT&T Communications of the Midwest, Inc.; MCImetro Access Transmission Services, Inc.; and MFS Communications Company for Arbitration with U S WEST Communications, Inc. Pursuant to Section 252(b) of the Federal Telecommunications Act of 1996*, Docket No. P-422, 421/M-96-885 (Minn. PUC March 17, 1997); *AT&T Communications of the Southwest, Inc.'s Petition for Arbitration Pursuant to Sec. 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Southwestern Bell Telephone Company*, Case No. TO-97-40 (MO PSC, Dec. 11, 1996); *Petition of MCI Telecommunications Corporation for Arbitration Pursuant to Sec. 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Ohio Bell Telephone Company d/b/a Ameritech Ohio*, Case No. 96-888-TP-ARB (OH PUC, Feb. 20, 1997); *Petition of AT&T for Arbitration under the Telecommunications Act of 1996*, Docket No. 96-01152 (TN RA, Jan. 23, 1997); *Petition of Waller Creek Communications, Inc. for Arbitration with Southwestern Bell Telephone Company*, Docket No. 17922 (TX PUC, Dec. 29, 1997); *Petition of Electric Lightwave for Arbitration Pursuant to Sec. 252(h) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with GTE Northwest Inc.*, Docket No. UT-901029 (WA UTC, March 13, 1992); *In Re: Bell Atlantic*, DE 97-229, Order No. 22,990 (NH PUC, July 24, 1998); *Petition for Arbitration of an Interconnection Agreement Filed by MCI Telecommunications Corporation*, Docket No. 2467, Order No. 15201 (RI PUC, Jan. 24, 1997).

as to whether dark fiber will continue to be offered as a UNE as ordered by state commissions. Obviously, uncertainty makes it difficult for CLECs to plan their networks and ultimately to provide service to end users. By including dark fiber on the list of minimum unbundled network elements that ILECs must offer nationally, the FCC could provide certainty to CLECs and avoid unnecessary litigation that strains the resources of both CLECs and state commissions. Moreover, there is no evidence that the current availability of loop and interoffice transport dark fiber is nearly sufficient to warrant even a preliminary discussion of eventually removing dark fiber from the minimum national list of UNEs⁴.

II. DARK FIBER IS USED IN THE PROVISION OF TELECOMMUNICATIONS SERVICE

The Communications Act defines the term “network element” as follows:

A facility or equipment used in the provision of a telecommunications service. Such term also includes features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, data bases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.⁵

Noting the breadth of this definition, the Supreme Court in *AT&T v. Iowa Utilities Board* upheld the Commission's broad construction of the statutory definition of network element. In so doing, the Court rejected ILEC arguments that a "network element" must

⁴ These comments assume that the FCC will adopt such a minimum national list on a going-forward basis as it did initially in the Local Competition Order. All of the policy justifications for adopting such a minimum national list remain fully relevant and valid. See Local Competition Order, ¶¶ 241-242.

⁵ 47 U.S.C. § 153(29).

be part of the physical facilities and equipment used to provide local telephone service.⁶ As set forth in the Affidavit of David A. Graham, dark fiber is a *physical facility*--fiber optic cable--that is customarily *used* by telecommunications carriers for the purpose of providing telecommunications service.⁷ Thus, dark fiber meets even ILEC definitions of a network element.⁸

In some state proceedings, however, BA has advocated a narrow interpretation of the term “unbundled element” by imposing a temporal limitation on the word “used.” BA has contended that dark fiber is not a network element because it is not presently energized or “lit” and, therefore, not “currently used” to provide telecommunications service.

This argument relies on an empty formalism and is easily rejected. As stated above, dark fiber is customarily used by telecommunications carriers for the purpose of providing telecommunications service. Its sole purpose is telecommunications.⁹ Furthermore, the BA argument proves too much. It would exclude from the definition of “UNE” several other parts of the ILEC network that are firmly recognized as within the statutory definition. Thus, as pointed out by the New Hampshire Public Utilities Commission, the fact that dark fiber is not “currently used” does not distinguish it from UNEs that have spare capacity:

The fact that dark fiber is not currently used in the provision of service to customers for a fee does not distinguish itself

⁶ AT&T Corp. v. Iowa Utils. Bd., 119 S.Ct. 721, ___, 142 L.E.2d. 834, 854 (1999).

⁷ Graham Affidavit at ¶ 6.

⁸ There can also be no question that dark fiber meets the requirements of Section 251(c)(3) since it is unquestionably used to provide a telecommunications service by NEVD. See 47 U.S.C. § 251(c)(3).

⁹ Graham Affidavit at ¶ 6.

from other network elements. Most parts of a network are designed to have spare capacity, and fiber is no exception. We presume that is why Bell Atlantic's accounting records report, as used and useful, all fiber sheath which has even one lit strand.¹⁰

Dark fiber has been deployed in BA's network for use in providing telecommunications service. Further, in some cases, dark fiber is actually wrapped around "lit fiber" that is classified as a UNE. There can be no question, therefore, that it meets the definition of UNE.

III. IT IS "TECHNICALLY FEASIBLE" FOR ILECS TO PROVIDE UNBUNDLED DARK FIBER TO CLECS

Under the terms of its interconnection agreements with BA, pertinent copies of which are included as exhibits to the attached Affidavit of David A. Graham, unbundled dark fiber is offered to NEVD, subject to availability, for the purpose of using such fiber as a transmission medium for the provision of telecommunications services. Unbundled dark fiber is accessed from NEVD's collocation arrangements at existing BA hard termination points (e.g., fiber distribution frames, industry standard mechanical fiber connectors) or at existing slice points.

To order dark fiber, NEVD submits a written request designating the two locations between which unbundled dark fiber is desired and the number of dark fiber pairs requested. BA currently provides unbundled dark fiber in the following locations: between two NEVD collocation arrangements; between an NEVD collocation arrangement and end users' premises; and between an NEVD collocation arrangement and

¹⁰ *In Re: Bell Atlantic*, DE 97-229, Order No. 22,990 at 6 (NHPUC, July 24, 1999).

an existing BA splice point. Accordingly, it is “technically feasible” for ILECs to provide unbundled dark fiber at these points in a network.

IV. DARK FIBER SATISFIES THE STANDARDS OF SECTION 251(d)(2).

Dark fiber is clearly not a proprietary UNE. Furthermore, failure to provide dark fiber used in the "loop" distribution plant as well as in interoffice transport on an unbundled basis would unquestionably impair CLECs' ability to provide telecommunications services. Thus, under Section 251(d)(2), both loop and interoffice transport dark fiber must be made available as a UNE.

A. DARK FIBER IS NOT A PROPRIETARY NETWORK ELEMENT.

Section 251(d)(2) provides that, in determining which network elements should be unbundled under section 251(c)(3), the Commission shall consider:

At a minimum, whether (A) access to such network elements as are proprietary in nature is necessary; (B) the failure to provide access to such network element would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.¹¹

Under the Act, it is clear that the “necessary” standard may not be considered for network elements that are not proprietary.

There is no evidence that dark fiber is a proprietary network element. NEVD does not believe that BA has asserted the contrary in the course of proceedings in the BA-North service area. Dark fiber carries with it no proprietary protocols, nor does it contain or involve proprietary information. Further, fiber optic cable is a commodity that can be purchased from a number of manufacturers. Since dark fiber is not proprietary, the “necessary” standard does not apply.

¹¹ 47 U.S.C. § 251(d)(2).

B. THE FAILURE TO PROVIDE UNBUNDLED ACCESS TO DARK FIBER WOULD IMPAIR THE ABILITY OF TELECOMMUNICATIONS CARRIERS TO PROVIDE COMPETITIVE SERVICES.

Before ILECs can be required to unbundle network elements, the FCC must consider whether “the failure to provide access to network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.”¹² In considering this, the Supreme Court stated that the Commission must apply “some limiting standard, rationally related to the goals of the Act.”¹³ The Court also found that the FCC must consider “the availability of elements outside the incumbent’s network.”¹⁴

The import of the Supreme Court’s decision is that the Commission may not conclude that the mere presence of *any* difference between the use of a network element and the use of a substitute functionality satisfies the “impair” test. NEVD suggests that the Commission should inquire whether any such difference between the network element and the substitute *materially* reduces a CLEC’s ability to provide the services it wants to offer. Accordingly, if a CLEC could fully internalize the added burden imposed by such a difference so that its ability to provide the service remains unaffected, then the failure to provide the network element would not result in impairment. By contrast, if a CLEC’s ability to provide the proposed service would be materially affected if it were required to use a proposed substitute, such CLEC would be impaired.

¹² 47 U.S.C. § 251(d)(2)(B).

¹³ AT&T Corp. v. Iowa Utils. Bd., 142 L.Ed.2d. at 855.

¹⁴ Id.

NEVD anticipates that ILECs such as BA may assert that the Supreme Court's decision means that elements that are available from other sources do not have to be provided as unbundled elements under the Act. This is wrong. For example, the theoretical availability of substitutes does not demonstrate that the inability to obtain dark fiber would not impair NEVD's ability to provide telecommunications services. Simply put, if a theoretical substitute results in a material increase in a CLEC's cost, it is not a reasonable substitute. Similarly, if a theoretical substitute results in a material decrease in a CLEC's quality of service, it is not a reasonable substitute. Further, if a theoretical substitute results in a material delay in providing service, it is not a reasonable substitute.

Notwithstanding the availability of theoretical alternatives, the availability of unbundled dark fiber is imperative to sustainable local competition. As set forth in the Affidavit of David A. Graham, the availability of unbundled dark fiber makes it efficient for market entrants, such as NEVD, to install SONET ring architecture in areas that are currently subject to little or no competitive entry. Access to unbundled dark fiber transport has made it economically feasible for NEVD to extend its networks beyond densely populated metropolitan areas and into suburban areas. Without such access, NEVD would experience such substantial increased costs, delay and degradation of service quality that NEVD would likely be forced to discontinue or substantially scale back its plans to serve customers in such areas.

C. THERE ARE NO SUBSTITUTES FOR DARK FIBER LOOPS.

Recently, BA has been deploying fiber in the local loop to serve large, multi-tenant buildings. There are no substitutes for such unbundled dark fiber loops. Just like conventional 2-wire and 4-wire copper loops, fiber optic loops are bottleneck facilities that tend to hold the end user hostage to the ILEC until and unless they are unbundled as a UNE.¹⁵ If CLECs such as NEVD are required to build out loops to reach end user customers, there will be no widespread competition, especially for residential customers.

If unbundled dark fiber loops were not available to NEVD, the Company's ability to offer state-of-the-art products and services such as Rate Adaptive Digital Subscriber Line ("RADSL") (High Speed Bandwidth to the premise) would be limited to a physical distance of approximately 2 miles (\pm 12,000) of non-loaded copper from the central office.¹⁶ Access to unbundled dark fiber in feeder/distribution network allows NEVD to extend the service offering to subscribers throughout the exchange by placing NEVD equipment at the end of the fiber lead, thereby maximizing customer coverage while minimizing the length of the copper extension and meeting the 2 mile threshold.¹⁷ Accordingly, making unbundled dark fiber available on a national basis will promote the development of advanced telecommunications services.

D. THERE ARE NO SUBSTITUTES FOR DARK FIBER INTEROFFICE TRANSPORT.

Theoretically, there are substitutes for unbundled dark fiber as an interoffice transport medium. First, NEVD could purchase lit interoffice transport from BA at the

¹⁵ Graham Affidavit at ¶ 13.

¹⁶ Id. at ¶ 24.

¹⁷ Id. at ¶ 25.

rates established in its interconnection agreements or in cost proceedings. Second, NEVD could purchase dark fiber directly from a vendor and install it as needed. Third, NEVD could lease or procure fiber from a non-ILEC source. For the reasons discussed below, none of these “theoretical substitutes” is a “reasonable substitute” for unbundled dark fiber.

1. Bell Atlantic Lit Transport Is Not A Reasonable Substitute For Dark Fiber.

As explained in the Affidavit of David A. Graham, if NEVD is required to purchase lit transport in the place of unbundled dark fiber, it will result in a prohibitive (and unquestionably "material") increase in cost. For example, if NEVD is required to use OC-48 lit transport from BA instead of the unbundled dark fiber that it is now procuring to provide OC-48 service in some states, the recurring costs to NEVD for completing its SONET ring network in Massachusetts will be increased approximately 8-fold.¹⁸ It would be a vast understatement to say that NEVD’s ability to provide service would be materially impaired by an increase in cost of this magnitude. A similar magnitude of increased expense would apply with respect to the installation of NEVD’s networks in Rhode Island and New Hampshire.

An additional limitation on BA’s lit OC-48 transport is that it is offered on a point-to-point basis only. This limitation further increases NEVD’s costs and results in a material decrease in the reliability of NEVD's network because it requires the introduction of 3 multiplexers (“MUXs”) at each cage location instead of the single MUX that is currently required using unbundled dark fiber.¹⁹ Specifically, establishing ring topography

¹⁸ Id. at ¶ 28.

¹⁹ Id. at ¶ 29.

using BA lit fiber would require the provision of a terminating MUX to deliver the incoming link to NEVD and the provision of a second MUX to accept the outgoing link from NEVD for transport to the next node. In this configuration, a NEVD MUX must be placed between the two BA MUXs for interconnection to complete the hand off at each node. Using the NEVD 15-node ring in Massachusetts as an example, *BA would install a total of 30 unnecessary MUXs and introduce 30 additional points of potential failure in the NEVD network that would not exist in a ring built with dark fiber on the same route.*²⁰ Further, the cost of the additional 30 multiplexers must be borne by NEVD at the rates charged by BA for providing the link in the lit fiber configuration.²¹

Moreover, if NEVD were required to lease BA's lit OC-48 transport in place of unbundled dark fiber, NEVD's control and management of its interconnect links would become totally dependent upon BA for the identification, diagnosis and repair of the fiber and multiplex equipment to ensure NEVD's point-to-point integrity.²² In contrast, with a dark fiber configuration, NEVD purchases and installs *its own* multiplexers to complete its SONET ring network. Importantly, this network design provides NEVD with complete control of its network for provisioning, surveillance and repair. It also provides NEVD with a network that is redundant and transparent for its customers.²³

Accordingly, if NEVD was required to use BA lit transport instead of dark fiber, it will result in a material decrease in NEVD's service quality.

²⁰ Id. at ¶ 30.

²¹ Id.

²² Id. at ¶ 31.

²³ Id. at ¶ 32.

2. Procuring Fiber From Non-ILEC Sources Is Not A Reasonable Substitute for Unbundled Dark Fiber.

As a competitive firm, NEVD obviously has a strong incentive to procure dark or lit fiber at the lowest cost and the most favorable terms and conditions that are available. Accordingly, prior to undertaking the installation of its networks, NEVD has actively sought out alternative sources for obtaining fiber.

A theoretical alternative to obtaining dark fiber from BA is attempting to procure it from non-ILEC local service providers. Such non-ILEC sources for fiber such as Neon, NEES, C2C, or other CLECs do exist in the northeast but at this time, they do not offer a readily available, reasonable substitute for unbundled dark fiber.

A major obstacle to relying on third party vendors is that they simply do not offer fiber on a ubiquitous basis. As explained in paragraph 36 of the Affidavit of David A. Graham, NEVD's experience is that at this stage in the market, such non-ILEC vendors do not have fiber available in the locations where NEVD needs it. For example, third party vendors were present in only 2 of the 15 BA central offices in Massachusetts where NEVD intends to collocate.²⁴ An additional problem with relying on CLECs is that, as with BA, they generally offer lit transport only on a point-to-point basis. Accordingly, the same limitations pertaining to service quality that apply BA's lit OC-48 offering apply to fiber procured from third party vendors.²⁵ In sum, NEVD would be materially impaired if it were forced to rely on non-ILEC vendors of fiber.

²⁴ Id. at ¶ 36.

²⁵ Id. at ¶ 38.

3. Installing Fiber Through Self-Provisioning Is Not A Reasonable Substitute For Unbundled Dark Fiber.

With respect to self-provisioning, NEVD can and does procure and install dark fiber for its network. However, the process is time-consuming and substantially more expensive than the alternatives. Obtaining permits, performing excavation work, and securing necessary access to rights-of-way, pole attachments, and conduit space is a very time-consuming process. For example, it took NEVD six months just to gain access to conduit space in order to be able to pull cable 11,000 feet from BA's switch to NEVD's switch in Worcester, Massachusetts.²⁶ As stated above, NEVD intends to roll out SONET ring networks in three states later this summer, relying on unbundled dark fiber for transmission. If NEVD were required to install its own fiber in constructing such networks, NEVD's planned entry in Massachusetts, New Hampshire and Rhode Island would be materially delayed and its networks materially downsized.²⁷

NEVD further estimates the cost per mile of installing its own fiber in BA conduit to be approximately \$46,680. If NEVD were required to install its own fiber in BA conduit to complete its SONET ring networks in the state of Massachusetts it would cost NEVD approximately \$17 million just for the interoffice transport component required to complete such a network. These huge sunk costs represent a substantial entry barrier that is significantly lowered where dark fiber is available as a UNE. Accordingly, if NEVD were required to install its own fiber to complete its SONET ring network in the state of Massachusetts, as well as in other states, its costs would be prohibitively increased.

²⁶ Id.

²⁷ Id. at ¶ 43.

VI. CONCLUSION

For the above reasons, NEVD respectfully requests that this Commission include dark fiber to the list of unbundled network elements that ILECs must provide on a national basis.

Respectfully submitted,

/s/_____

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ATTORNEYS FOR
NEW ENGLAND VOICE AND DATA, LLC

May 26, 1999

**AFFIDAVIT OF DAVID A. GRAHAM
ON BEHALF OF
NEW ENGLAND VOICE & DATA, LLC**

David A. Graham, being duly sworn, deposes and states as follows:

I. INTRODUCTION

1. My name is David A. Graham. I am the Vice President of Network Implementation for New England Voice & Data, LLC (“NEVD” or the “Company”).
2. As Senior Vice President of Network Implementation, my primary responsibilities are the design, engineering, installation and turn-up of the Company’s outside network, including transport, collocation, and delivery of services.
3. I have over 31 years of experience in the design, planning, engineering, installation, surveillance and restoration of telecommunications networks. I began my career as an employee of New England Telephone Company in 1968 in its New Hampshire Outside Plant Engineering Department and held numerous technical and engineering management positions with New England Telephone, NYNEX and NYNEX Corporate prior to my retirement in April 1997. My more significant responsibilities while employed by NYNEX were the management and administration of a \$50 million annual capital construction program for expansion and modernization of NYNEX’s telecommunications infrastructure for the state of Rhode Island. This responsibility included not only the identification, funding and scheduling, but also the engineering and construction of cable, loop electronics, poles, frame, conduit and surveillance equipment to ensure overall service continuity in a cost effective manner. Since leaving NYNEX, I have worked for CLECs on engineering and operations matters.
4. In Massachusetts, New Hampshire and Rhode Island, where state commissions have ruled that dark fiber is a unbundled network element (“UNE”), NEVD is in the process of rapidly installing state-of-the-art SONET ring networks that are designed to reach customers in small cities and surrounding suburban areas. To do this, NEVD is purchasing and installing switches, aggressively collocating in a large number of Bell Atlantic central offices, connecting such central offices by leasing Unbundled Dark Fiber and energizing such Unbundled Dark Fiber with NEVD electronics.
5. NEVD anticipates turning up its networks this summer and will offer a full array of voice, Internet and data services to customers in local exchanges that have not seen vigorous, if any, competition.

II. GENERAL DESCRIPTION OF DARK FIBER

6. Dark fiber is fiber optic cable that is customarily used by telecommunications carriers for the purpose of providing telecommunications service. ILECs like BA have deployed it to create a state-of-the-art telecommunications network. A single sheath of fiber optic cable may consist of up to 216 fiber strands, with each strand capable of transporting telecommunications independently of other strands in this same cable sheaths. The fiber

optic sheaths and its strands are sometimes referred to in shorthand as “fiber.” In order to transport telecommunications, a strand must be energized or “lit” with electronics. As presently installed in BA’s network, not all of the strands of fiber optic cable are lit. Hence, those strands are frequently referred to as “dark.” Accordingly, dark fiber is a fiber optic transmission facility that is used by telecommunications carriers to provide telecommunications service but which currently doesn’t have electronics attached to it.

7. Currently, there is a significant amount of spare dark fiber in BA’s feeder distribution plant (where BA has deployed digital loop carrier) and in its interoffice transport facilities. Such spare capacity exists for a number of reasons. First, ILECs such as BA typically install cable sheaths that are sized to provide excess capacity. This is done because it is time consuming and costly to lay fiber since it involves obtaining permits, performing excavation work, installing conduit and restoring roads. Second, fiber cables historically were sized based on an asynchronous network design. With the advent of SONET networks, however, four-fold increases in transport capacity are being realized.
8. NEVD seeks to use dark fiber in the same ways that ILECs use fiber, that is, for the construction of SONET ring architecture and the configuration of optical fiber and other facilities that will enable NEVD to provide, maintain and monitor service in a given geographic area. This type of system architecture is generally the preferred architecture in the industry today.

A. DARK FIBER TRANSPORT

9. NEVD seeks access to spare dark fiber in BA’s interoffice transport facilities. Unbundling spare dark fiber in ILEC interoffice transport facilities will promote the rapid development of a SONET ring networks.
10. SONET ring architecture enables a carrier, for example, to detect a cut in a cable and redirect service so that the customer does not experience an interruption. Accordingly, it is a matter of substantial importance to CLECs such as NEVD in connection with the quality of service they provide to end users.
11. The availability of Unbundled Dark Fiber transport enables CLECs such as NEVD to install and extend such networks to small cities and surrounding suburban areas that have not yet obtained the benefits of a competitive local exchange market. Without Unbundled Dark Fiber transport, competition is likely to remain limited to densely populated metropolitan areas.

B. DARK FIBER LOOPS

12. NEVD seeks access to spare dark fiber in BA’s feeder distribution system. Unbundling dark fiber in ILEC feeder distribution plants will promote competition, especially for residential customers and customers located in small cities and surrounding suburban areas.
13. Recently, BA has been deploying fiber in the local loop to serve large, multi-tenant buildings. Just like conventional 2-wire and 4-wire analog loops, dark fiber loops are classic bottleneck facilities that will hold end-users hostage to BA unless such dark fiber

loops are unbundled. CLECs such as NEVD must have access to dark fiber loops to reach customers economically.

C. DARK FIBER IS NOT PROPRIETARY

14. Dark fiber is not a proprietary network element. It carries with it no proprietary protocols, nor does it contain or involve proprietary information. Further, fiber optic cable is a commodity that can be purchased from a number of manufacturers.

III. THE AVAILABILITY OF UNBUNDLED DARK FIBER PROMOTES RAPID FACILITIES-BASED COMPETITION

15. The availability of Unbundled Dark Fiber is a key factor in determining whether NEVD will enter a particular market and install a network. NEVD is not aggressively entering markets where dark fiber is not readily available.
16. Currently, NEVD has access to dark fiber as a UNE at interim TELRIC prices in the Commonwealth of Massachusetts and the States of New Hampshire and Rhode Island. NEVD is actively using such access to Unbundled Dark Fiber to install SONET architecture that will enable NEVD to serve customers in small cities and surrounding suburban areas. Attached to this Affidavit as Exhibits 1A, 1B, and 1C respectively, please find NEVD's amendments to its interconnection agreements for the Commonwealth of Massachusetts and States of New Hampshire and Rhode Island.
17. The state decisions noted above are enabling NEVD to install SONET ring networks on an economical and rapid basis. To illustrate, in Massachusetts the transport costs to NEVD for using Unbundled Dark Fiber to complete its 15-node, 364 mile SONET ring network will include a nonrecurring charge of \$676.65 and a recurring monthly charge of \$48,348.39. This amounts to an annual recurring charge of \$580,176. This is not a small expenditure for a market entrant, but it is economical compared to so-called alternatives.
18. Access to BA's Unbundled Dark Fiber is providing NEVD with important service quality advantages. This is because, as BA delivers Unbundled Dark Fiber between NEVD's cages, NEVD purchases and installs its own multiplexers to complete the SONET ring. Importantly, this network design provides NEVD with complete control of its network for provisioning, surveillance and repair. It also provides NEVD with a network that is "redundant" and "transparent" to its customers. Redundancy allows for the failure of any single network component without disrupting service to the customer, this happens "transparently" with no loss of signal.
19. Finally, the availability of Unbundled Dark Fiber is allowing NEVD to install and turn-up networks that cover a far more ubiquitous geographic area than if such access were denied.

IV. AT THIS POINT IN TIME, THERE ARE NO REASONABLE SUBSTITUTES FOR UNBUNDLED DARK FIBER

20. Before ILECs such as BA can be required to unbundle network elements, the FCC must consider whether the failure to provide access to network elements would "impair" the ability of the telecommunications carrier seeking access to provide the services that it seeks

to offer. The Supreme Court further ruled that the Commission may not conclude that the mere presence of any difference between the use of the network element and the use of a substitute satisfies the “impair” test. NEVD suggests that the Commission should inquire whether any such difference between the network element and the substitute *materially* reduces a CLEC’s ability to provide the services it wants to offer.

21. As will be described more fully below, there are no substitutes for dark fiber loops. It could be argued, theoretically, that there are substitutes for Unbundled Dark Fiber as a transport medium. First, NEVD could purchase interoffice transport from BA at the rates established in its interconnection agreements or in cost proceedings. Second, NEVD could purchase dark fiber directly from a manufacturer and install it as needed. Third, NEVD could lease or otherwise procure the fiber, dark or lit, from a third party vendor. For reasons that will be discussed more fully below, none of these theoretical alternatives are reasonable substitutes for Unbundled Dark Fiber.

A. THERE ARE NO SUBSTITUTES FOR DARK FIBER LOOPS

22. There are no substitutes for Unbundled Dark Fiber loops. Just like conventional 2-wire and 4-wire copper loops, fiber optic loops are bottleneck facilities that tend to hold the end-user hostage to the ILEC until and unless they are unbundled as a UNE. If CLECs are required to build out loops to reach end user customers, there will be no wide spread competition.
23. In contrast, unbundling dark fiber in the feeder distribution system will promote competition, especially for residential customers.
24. If Unbundled Dark Fiber loops were not available to NEVD, the Company’s ability to offer state-of-the-art products and services such as Rate Adaptive Digital Subscriber Line (“RADSL”) (High Speed Bandwidth to the premise) would be limited to a physical distance of approximately 2 miles (\pm 12,000) of non-loaded copper from the central office.
25. However, access to Unbundled Dark Fiber in the feeder/distribution network allows NEVD to extend this service offering to subscribers throughout the exchange by placing NEVD equipment at the end of the fiber lead, thereby maximizing customer coverage while minimizing the length of the copper extension and meeting the 2 mile threshold. Accordingly, making Unbundled Dark Fiber available on a national basis will promote the development of advanced telecommunications services.

B. BELL ATLANTIC LIT TRANSPORT IS NOT A REASONABLE
SUBSTITUTE FOR DARK FIBER

26. If NEVD is required to purchase BA lit transport in place of Unbundled Dark Fiber, it will result in a prohibitive increase in the cost of NEVD’s network.
27. As an example, BA’s tariffed charges for OC-48 transport in the Commonwealth of Massachusetts include a fixed charge of \$11,531.11 per node and a per mile charge of \$356.83. Attached to this Affidavit as Exhibit 2 is a list of the tariffed rates for UNEs in Massachusetts, including OC-48 transport.

28. *For NEVD to complete its 15-node, 364 mile SONET ring network by leasing BA's OC-48 transport would cost a staggering \$4,792,988 annually. This is approximately eight times more expensive than leasing Unbundled Dark Fiber as transport for its Massachusetts network. A similar magnitude of increased expense would apply with respect to NEVD's networks in New Hampshire and Rhode Island.*
29. An additional limitation of BA's OC-48 transport is that it is offered on a point-to-point basis only. This limitation further increases NEVD's costs and results in a material decrease in NEVD's service quality because it requires the introduction of three multiplexers ("MUXES") at each collocation cage instead of the single MUX that is required if NEVD is allowed to continue to order Unbundled Dark Fiber.
30. It is simply not possible for NEVD to use BA provided lit transport for its SONET ring network in a manner that allows NEVD to provide a level of service that is at parity with BA. This is because establishing ring topography using OC-48 transport from BA would require the provision of a terminating MUX to deliver the incoming link to NEVD and the provision of a second MUX to accept the outgoing link from NEVD for transport to the next node. In this configuration, a NEVD MUX must be placed between the two BA MUXs for interconnection to complete the hand off at each node. *Using NEVD's 15-node ring in Massachusetts as an example, BA would install a total of 30 unnecessary MUXs and introduce 30 additional points of potential failure in NEVD's network that would not exist in a ring built with dark fiber on the same route.* Further, the cost of the additional 30 multiplexers would be borne by NEVD at the rates charged by BA for providing the link in the lit fiber configuration.
31. If Unbundled Dark Fiber were no longer available in Massachusetts, New Hampshire and Rhode Island and NEVD was required to lease lit transport from BA, NEVD's control and management of its interconnect links would be totally dependent upon BA identification, diagnosis and repair of BA's fiber and multiplex equipment to ensure NEVD's point-to-point integrity. NEVD's surveillance operations would be able to manage NEVD's multiplexer equipment, but it would have no management capability for BA's multiplexers or transport.
32. In contrast, with a dark fiber configuration, NEVD can and will establish and maintain total control of its ring architecture and its overall service quality.
33. If NEVD is required to lease BA's OC-48 offering in place of Unbundled Dark Fiber, it will result in a prohibitive increase in NEVD's cost and a material decrease in the service quality that it is able to provide to end user customers.

C. PROCURING FIBER FROM THIRD PARTY VENDORS OR INSTALLING IT THROUGH SELF-PROVISIONING ARE NOT REASONABLE SUBSTITUTES FOR UNBUNDLED DARK FIBER

34. A theoretical alternative to obtaining Unbundled Dark Fiber from ILECs is attempting to procure dark or lit fiber from non-ILEC sources. Such non-ILEC sources for fiber such as Neon, NEES, C2C, or other CLECs do exist in the Northeast but at this point in time, they do not offer a readily available, interchangeable substitute for Unbundled Dark Fiber.

35. As a competitive firm, NEVD has a strong incentive to procure fiber at the lowest cost and the most favorable terms and conditions that are available. Accordingly, NEVD actively sought out third party vendors for fiber prior to undertaking the installation of its networks.
36. A major problem with third party vendors is that they do not offer dark or lit fiber on a ubiquitous basis. NEVD's experience is that at this stage in the market, such vendors do not have fiber available in locations where NEVD needs it. As an example, third party vendors of fiber were only present in 2 of NEVD's 15 collocation locations in Massachusetts. The cost to NEVD of dark fiber from non-ILEC sources in these locations is double the rate of Unbundled Dark Fiber.
37. Accordingly, if NEVD were required to obtain dark fiber from non-ILEC sources, it would have to drastically reduce the scope of its networks.
38. An additional limitation upon third party vendors is that, as with BA's OC-48 offering, the product that third party vendors offer is also point-to-point. Accordingly, the same problems described above with respect to service quality apply.
39. With respect to self-provisioning, NEVD can and does procure and install dark fiber for use in its network. However, the process is time consuming and expensive. Obtaining permits, performing excavation work, and securing necessary access to rights-of-way, pole attachments, and conduit space is a very time consuming process.
40. As an example, it took NEVD six months just to gain access to BA conduit space in order to be able to pull cable 11,000 feet from BA's switch to NEVD's switch in Worcester, Massachusetts.
41. Based on actual quotes for make-ready work from BA and from estimates from third party contractors, NEVD's cost to install its own fiber in BA conduit is approximately \$46,680 per mile. Accordingly, if NEVD were required to install its own fiber in BA conduit to complete its SONET ring network in the state of Massachusetts, it would cost NEVD approximately \$17 million.
42. Although the networks NEVD intends to install in New Hampshire and Rhode Island are somewhat smaller than in Massachusetts, the conclusion is essentially the same. It would be cost prohibitive for NEVD to self-provision interoffice transport in connection with its networks.
43. As stated in paragraphs 4 and 5 of this Affidavit, NEVD anticipates turning up its SONET ring networks in Massachusetts, New Hampshire and Rhode Island later this summer. If Unbundled Dark Fiber were not available in these states and NEVD was required to install its own fiber as interoffice transport, NEVD's plans to provide service would not only be substantially delayed, its plans would be substantially downsized.

Respectfully submitted,

/signed/

David A. Graham

Exhibit 1A

January 21, 1999

VIA FEDERAL EXPRESS

Mr. Scott Sawyer
New England Voice and Data, LLC
Executive Office Suites
3 Regency Plaza
Providence, R1 02903

RE: *Amendment to Interconnection Agreement between
Bell Atlantic and New England Voice and Data, LLC*

Dear Mr. Sawyer:

Enclosed for your records is an original executed First Amendment to the Interconnection Agreement made between Bell Atlantic - Massachusetts and New England Voice and Data, LLC and Bell Atlantic - New Hampshire and New England Voice and Data, LLC.

If you have any questions, please call Joe Greenwood at (617) 743-2395.

Sincerely,

Sylvia C. Williams

Enclosure

cc: Joe Greenwood

FIRST AMENDMENT
to
INTERCONNECTION AGREEMENT
between
NEW ENGLAND VOICE AND DATA
and
BELL ATLANTIC - MASSACHUSETTS

This First Amendment is entered into this 4th day of January, 1999, by and between New England Voice and Data, LLC ("NEVD"), with offices at 3 Regency Plaza Executive Office Suites, Providence, Rhode Island 02905, and New England Telephone and Telegraph Company, d/b/a Bell Atlantic-Massachusetts ("BA"), a New York corporation with offices at 185 Franklin Street, Boston, Massachusetts 02110.

WHEREAS, NEVD and BA ("the Parties") entered into an Interconnection Agreement dated October 21, 1998 (the "Agreement"); and

WHEREAS, the Parties now desire to amend the Agreement to set forth the rates, terms and conditions under which BA will provide Unbundled Dark Fiber to NEVD;

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, NEVD and BA hereby agree to amend the Agreement as follows:

1. Subject to the provisions of paragraph 2 below, BA agrees to provide Unbundled Dark Fiber to NEVD as a Network Element pursuant to the same terms and conditions under which BA makes Unbundled Dark Fiber available to other Competitive Local Exchange Carriers ("CLECs") in Massachusetts. Those terms and conditions are contained in BA's Unbundled Dark Fiber Service Description, as modified from time to time in BA's reasonable discretion subject to the jurisdiction of the Massachusetts Department of Telecommunications and Energy ("DTE"). A copy of the current Unbundled Dark Fiber Service Description is attached hereto as Exhibit DF.
2. BA agrees to provide Unbundled Dark Fiber to NEVD as a Network Element hereunder only to the extent that, and only for as long as, BA is required to do so pursuant to the Phase 3 Order of the DTE in the Consolidated Arbitrations (D.P.U. 96-73/74, 96-75, 96-80/81, 96-83 and 96-94) ("Order"), or such other explicit legal requirement as may subsequently be imposed. BA expressly reserves the right to appeal or otherwise seek to overturn the Order by any lawful means. At such time as the Order ceases to be binding on BA, BA may terminate its provision of Unbundled Dark Fiber hereunder on written notice to NEVD, subject to a reasonable transition period or such alternative as arrangements as the parties may at that time negotiate.
3. The initial prices applicable to the provision of Unbundled Dark Fiber hereunder shall be those filed by BA with the DTE for approval, as indicated in the attached pricing schedule. Upon DTE approval of permanent prices for Unbundled Dark Fiber, the approved prices shall apply.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as of this 4th day of January, 1999.

NEW ENGLAND VOICE AND DATA, LLC BELL ATLANTIC - MASSACHUSETTS

Title: Vice-President- Interconnection Services
Policy & Planning

UNBUNDLED DARK FIBER SERVICE DESCRIPTION

1.0 As a result of the Massachusetts Department of Telecommunications and Energy's Phase 3 Order in the Consolidated Arbitrations (D.P.U. 96-73/74, 96-75, 96-80/81, 96-83 and 96-94), Bell Atlantic-Massachusetts (BA-MA) is required to offer dark fiber as an unbundled network element (UNE) to Competitive Local Exchange Carriers (CLECs) in Massachusetts. Unbundled Dark Fiber will be offered in Massachusetts to CLECs in the manner described herein in order to comply with the Phase 3 Order.

1.1 Unbundled Dark Fiber is defined as a continuous fiber optic strand within an existing, in-place fiber optic cable sheath owned by BA-MA that a CLEC may access via its collocation arrangement. Establishment of applicable fiber optic transmission equipment or intermediate repeaters needed to power the Unbundled Dark Fiber in order to transmit information is the responsibility of the CLEC. A strand is not considered continuous if splicing is required to provide fiber continuity between locations. If a fiber strand can be made continuous by joining fibers at existing splice points within the same sheath, BA-MA will perform such splicing at the CLEC's request on a time-and-materials basis.

1.2 Unbundled Dark Fiber will be offered in Massachusetts to CLECs, subject to availability, solely for the purpose of their using the fiber as a transmission medium in the provision of telecommunications services. Unbundled Dark Fiber, where available, may be accessed from the CLEC's collocation arrangement at existing BA-MA hard termination points (e.g., fiber distribution frames, industry standard mechanical fiber connectors) or, as directed in the Phase 3 Order, at existing splice points. Unbundled Dark Fiber will be offered in a minimum quantity of two (2) fibers, with additional increments of two (2) fibers between the same two (2) locations.

1.3 BA-MA will make available for lease existing, in-place, spare dark fiber as Unbundled Dark Fiber to CLECs under contractual agreements and on a "first come, first served" basis. Reservations are not accepted for Unbundled Dark Fiber. BA-MA will not construct new or additional facilities to satisfy a CLEC's request for Unbundled Dark Fiber.

1.4 The Bell Atlantic Telecom Industry Services Operations Center (TISOC) will be the single point of contact for all Unbundled Dark Fiber requests. The CLEC must submit a written request designating the two locations between which Unbundled Dark Fiber is desired and the quantity of Unbundled Dark Fiber pairs requested. Each request must specify two (2) locations only; additional locations will require additional requests. BA-MA provides Unbundled Dark Fiber, where available, between the following locations: 1) CLEC's collocation arrangements, 2) CLEC's collocation arrangement and end users' premises, and 3) CLEC's collocation arrangement and an existing BA-MA splice point.

Upon receipt of the CLEC's written request, BA-MA will initiate a review of its cable records to determine whether spare dark fiber may be available for lease as Unbundled Dark Fiber between the locations and in the quantities specified in the CLEC's request, subject to field verification as outlined in 1.8 below. BA-MA will respond within fifteen (15) business days from receipt of the CLEC's request, indicating whether Unbundled Dark Fiber may be available based on the records search, except that for voluminous requests or large, complex projects, BA-MA reserves the right to negotiate a different interval. BA-MA will also provide an estimate of the applicable rates and charges for Unbundled Dark Fiber when the records indicate spare dark fiber may be available.

1.5 In order to maintain the integrity and reliability of the BA-MA network, BA-MA will reserve a reasonable quantity of fibers in any cable, depending upon the total number of fibers in the cable, to be designated as maintenance spares in order to effect emergency repairs or network rearrangements. These maintenance spares will not be available for lease as Unbundled Dark Fiber.

1.6 If the CLEC requests Unbundled Dark Fiber pairs that BA-MA has allocated for another customer (e.g., they have been installed or allocated to serve a particular customer in the near future), or for growth or survivability in a particular part of its network, BA-MA shall not be required to lease such dark fiber pairs as Unbundled Dark Fiber.

1.7 In the event Unbundled Dark Fiber is not available because of the reasons cited in the above two paragraphs (i.e., it is being reserved for maintenance, or allocated for a specific customer or for growth), BA-MA will notify the requesting CLEC as soon as practicable. The CLEC may request documentation supporting BA-MA's determination that existing, spare fiber is not available for lease as Unbundled Dark Fiber. BA-MA will provide such documentation which may include, at BA-MA's sole option, copies of its records or information extracted from its records, omitting all proprietary or confidential information. Such documentation will be provided within thirty (30) business days of the CLEC's request for the documentation, except that for voluminous requests or large, complex projects, BA-MA reserves the right to negotiate a different interval. The CLEC will be billed a non-recurring charge for cable documentation per request to reimburse BA-MA for the costs incurred in providing the CLEC with the documentation described in this provision.

1.8 BA-MA makes no representation or warranty regarding the accuracy or completeness of its cable records. At the CLEC's option, per the terms of individually negotiated contracts, BA-MA will initiate a field survey to verify the availability of dark fiber pairs for lease as Unbundled Dark Fiber, and that *such* fiber pairs are not defective or have not been used by field personnel for prior emergency restoration activity. In addition, as part of the field survey, the fiber pairs requested by the CLEC will be tested by placing a light source on the individual fibers and measuring the end-to-end loss utilizing industry standard fiber optic test equipment. The test results will be documented and provided to the CLEC. The applicable rates and charges estimated in 1.4 will also be confirmed at the conclusion of the field survey, and the CLEC will be informed of any modifications to the preliminary rate quote. When a field survey is performed, the CLEC will be billed a non-recurring charge on a time-and-materials basis, regardless of the outcome of the survey. The interval for the field survey will be negotiated based upon the number of locations and quantity of fiber pairs requested. Should the CLEC wish to proceed in ordering Unbundled Dark Fiber based on the results of the field survey, the CLEC must place an order with the BA-MA TISOC by the close of business on the next business day, after which the fiber will become available to satisfy other requests.

1.9 Should the CLEC decline the field survey described in 1.8 above and place an order for Unbundled Dark Fiber based solely on the information contained in BA-MA's cable records, the CLEC assumes all risks of relying on such records including, but not limited to, revised rates and/or order cancellation charges if it is subsequently determined during the implementation process that Unbundled Dark Fiber is not available.

1.10 BA-MA's sole obligation is to provide Unbundled Dark Fiber, where available, that conformed to BA-MA standard transmission characteristics at the time the fiber was installed. It is the CLEC's responsibility to determine that the transmission characteristics of the Unbundled Dark Fiber provided by BA-MA will accommodate the CLEC's transmission requirements and loss budget. BA-MA will not re-terminate or re-splice fibers in order to improve the transmission characteristics of Unbundled Dark Fiber. Time-and-materials charges will apply if the CLEC requests BA-MA to re-test the fibers

subsequent to the field survey described in 1.8 above. In cases where a field survey is declined by the CLEC, as described in 1.9 above, initial or subsequent testing of the fiber to determine actual transmission requirements will be performed at the CLEC's request on a time-and-materials basis. If the CLEC subsequently determines the Unbundled Dark Fiber provided by BA-MA is not suitable, the CLEC must submit a request to disconnect the Unbundled Dark Fiber.

1.11 The transmission characteristics of the Unbundled Dark Fiber cannot be guaranteed to remain constant over time. Cable restoration or network rearrangements that require additional field splices may result in additional loss being introduced. The CLEC assumes all risks associated with the unforeseen introduction of future splices.

1.12 When the CLEC places an order for Unbundled Dark Fiber, the CLEC will be billed a non-recurring service order charge for the initial pair of fibers between the two (2) locations specified in the CLEC's request. An incremental service order charge will apply for each additional pair of fibers between the same two (2) locations when ordered at the same time on a single request. In addition to the service order charge, appropriate time-and-materials charges will be billed to the CLEC to recover the work efforts involved with the initial review of BA-MA records.

The CLEC will also be billed a monthly rate that consists of a fixed monthly charge per fiber pair, per serving wire center, and a monthly rate per fiber pair, per mile. The mileage used to determine the monthly rate for Unbundled Dark Fiber is based on airline mileage utilizing the Vertical and Horizontal (V&H) coordinate method between the locations to which the facility is provisioned. When the calculation results in a fraction of a mile, the mileage will be rounded up to the next whole mile before applying the rates. In all cases, a minimum of one mile shall apply.

1.13 In a BA-MA central office, BA-MA will provide Unbundled Dark Fiber hard termination at a fiber distribution frame (FDF). BA-MA will provide appropriate cross-connections at such FDFs to the collocation node. (Appropriate recurring monthly charges will apply: Service Access Charge (SAC) with physical collocation and Interconnection Access Charge (IAC) with virtual collocation.) In addition, when BA-MA provides intermediate cross-connection(s) at a FDF in intermediate BA-MA central office(s) to accommodate a CLEC's request, an Unbundled Dark Fiber Intermediate Cross-Connection recurring charge will apply.

1.14 BA-MA will not introduce additional splice points to accommodate a CLEC's request. All work required to be performed at an existing splice location will be performed by BA-MA personnel. In the case of interconnection at an existing splice point, BA-MA, using current BA-MA approved splicing methods, will connect to a fiber optic cable provided, installed and maintained by the CLEC. All rights-of-ways, conduit, duct, and pole space for the CLEC provided cable are to be secured by the CLEC at the CLEC's expense. Any additional BA-MA costs incurred to gain access to an existing splice point and to perform a splice or related work will be billed to the CLEC on a time-and-materials basis. To the extent any governmental or private property permit, easement, or other authorization or approval is required for access to Unbundled Dark Fiber, such as to open manhole covers, the CLEC is responsible for obtaining such permit, easement, or authorization.

1.15 In its Phase 3 Order, the Department recognized that when a fiber cable is spliced, the "downstream" portion of the fiber may become unusable or stranded. In cases where interconnection at an existing splice location renders other portions of the fiber unusable or stranded, a recurring charge will apply per fiber pair, per mile, based on airline mileage utilizing the V&H coordinate method. When the calculation results in a fraction of a mile, the mileage will be rounded up to the next whole mile before applying the rates. In all cases, a minimum of one mile shall apply. Notwithstanding this

provision, if BA-MA believes that a request by a CLEC for lease of Unbundled Dark Fiber would strand an unreasonable amount of fiber capacity, BA-MA is allowed to petition the Department for relief from its obligation to provide Unbundled Dark Fiber. BA-MA also reserves the right to seek relief from its obligation if a request for Unbundled Dark Fiber would result in service disruption or degradation to other customers or carriers.

1.16 In the event Unbundled Dark Fiber is leased to a CLEC, and the Unbundled Dark Fiber is no longer being used by the CLEC in the provision of telecommunications services, the Unbundled Dark Fiber will be returned to BA-MA by the CLEC within 60 days.

1.17 In leasing Unbundled Dark Fiber, the CLEC accepts the environmental risks inherent in outside plant construction. In the event BA-MA must perform emergency cable restoration to its own facilities, all efforts will be made to restore the CLEC's leased Unbundled Dark Fiber pairs in the same manner as other fibers in the same cable sheath using BA-MA standard restoration procedures. Upon notification by BA-MA, the CLEC must also agree to cooperate with BA-MA for normal cable maintenance activity (e.g., cable rearrangements, etc.).

1.18 BA-MA will commence billing for Unbundled Dark Fiber (i.e., applicable non-recurring and recurring rates as described in Sections 1.1, 1.8, 1.10, 1.12, 1.13, 1.14 and 1.15) upon completion of the service order on the requested due date. The CLEC may request a change of service date for the Unbundled Dark Fiber request, but the new service date may not exceed the original service date by more than 30 calendar days. BA-MA accordingly delays the start of service and the CLEC is charged a Service Date Change charge.

If the CLEC's requested service date is more than 30 calendar days after the original service date, or if the CLEC is unable to accept the Unbundled Dark Fiber within 30 calendar days of the original service date, the CLEC's order for the Unbundled Dark Fiber will be canceled by the TISOC representative on the 31st day with the appropriate Cancellation Charges as defined in Section 1.19. In addition, the pairs requested on the canceled order(s) will not be reserved for the CLEC and will be returned to available inventory.

1.19 Cancellation charges billed to the CLEC include appropriate service order charges in addition to any time-and-materials charges for installation work performed and other expenses incurred on behalf of the CLEC's request(s) up to and including the day the cancellation is received or the order is canceled by BA-MA per the terms of Section 1.18.

TIME & MATERIALS BILLING (When Applicable)

WORK GROUP	USOC	WORK FUNCTION			
		Field Survey (Par. 1.8)	Testing (Par. 1.10)	Splice (Par. 1.1 & 1.14)	Records (Review) (Par. 1.12)
NTE ¹ Planning	TM1DA	X	X	X	X
NTE ¹ Design	TM1DB	X	X	X	X
NTE ¹ Technician	TM1DC	X	X	X	X
C.O. Frame Technician	TM1DD	X	X		

Exhibit 1

¹ NTE - Network Transport Engineering (Used generically to represent all outside plant work groups involved in the planning, design, and implementation of fiber optic cable.)

Massachusetts - Dark Fiber Price Schedule

Line

NCR

1	Service Order:	Initial Pair - Per 'A' - 'Z' Point	\$23.63
2		Each Add'l Pair - Same 'A' - 'Z' Point	\$21.48
3	Cable Documentation:	Per Request	\$30.26
<u>Monthly Recurring</u>			
4	Fixed Cost per Serving Wire Center:	Per Pair	\$11.97
5	Fiber per Mile:	Per Pair	\$65.38
6	Intermediate C.O. Cross-Connection:	Per Pair	\$19.70
7	Unusable Fiber Strands per Mile:	Per Pair	\$45.92

Exhibit 1B

February 2, 1999

Mr. Thomas B. Getz
Executive Director and Secretary
New Hampshire Public Utilities Commission
Eight Old Suncook Road
Concord, NH 03301

Re: Amendment to Interconnection Agreement Between New
England Voice and Data, LLC and Bell Atlantic

Dear Mr. Getz:

In accordance with Order No. 22,236 dated July 12, 1996, New England Voice and Data, LLC and New England Telephone and Telegraph Company, d/b/a Bell Atlantic-New Hampshire hereby file an amendment dated January 4, 1999, to the Interconnection Agreement between them dated October 21, 1998, approved by Order No. 23,078, and jointly petition the Commission for approval of that amendment pursuant to Section 252(e) of the Telecommunications Act of 1996 (the Act), 47 U.S.C. § 252(e). The amendment provides for the provision of unbundled dark fiber pursuant to the terms and conditions set forth in the amendment and its attachment. Should the Commission subsequently request the submission of further information, the parties will timely comply with such request.

Under the Act, a state commission may reject a negotiated interconnection agreement such as this one only if the commission finds that the agreement (or any portion thereof) discriminates against a telecommunications carrier not a party to the amendment' or that the agreement's implementation would not be consistent with the public interest, convenience and necessity. 47 U.S.C. § 252(e)(2)(A). The parties respectfully submit that their agreement meets this statutory standard and therefore request that the Commission approve it. Section 252(e)(4) of the Act provides that if a state commission does not act to approve or reject a negotiated interconnection agreement within 90 days after its submission, it shall be deemed approved.

Representing New England Voice & Data are Robert Shanahan Scott Sawyer and Dave Mayer. Please include Messrs. Shanahan Sawyer and Mayer on all notices and service lists. Mr. Shanahan's, Mr. Sawyer's and Mr. Mayer's addresses are:

Mr. Robert Shanahan
New England Voice & Data, LLC
Three Regency Plaza
Providence, RI 02903
Tel (401) 854-2372
Fax (401) 854-2380

Scott Sawyer, Esquire
New England Voice & Data, LLC

Three Regency Plaza
Providence, RI 02903
Tel (401) 854-2372
Fax (401) 854-2380

Dave Mayer, Esquire
Cameron and Mittleman, LLP
56 Exchange Terrace
Providence, RI 02903
Tel (401) 331-5700
Fax (401) 45~4526

Thank you for your attention to this matter.

Sincerely,

Victor D. Del Vecchio

cc: Mr. Robert Shanahan
Scott Sawyer, Esquire
Dave Mayer, Esquire

FIRST AMENDMENT
to
INTERCONNECTION AGREEMENT
between
NEW ENGLAND VOICE AND DATA, LLC
and
BELL ATLANTIC - NEW HAMPSHIRE

This First Amendment is entered into this 4th day of January, 1999, by and between New England Voice and Data, LLC ("NEVD"), with offices at 3 Regency Plaza, Executive Office Suites, Providence, Rhode Island and New England Telephone and Telegraph Company, d/b/a Bell Atlantic-New Hampshire ("BA"), a New York corporation with offices at 185 Franklin Street, Boston, Massachusetts 02110.

WHEREAS NEVD and BA ("the Parties") entered into an Interconnection Agreement dated September 30, 1998 (the "Agreement"); and

WHEREAS the Parties now desire to amend the Agreement to set forth the rates, terms and conditions under which BA will provide Unbundled Dark Fiber to NEVD;

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, NEVD and BA hereby agree to amend the Agreement as follows:

1. Subject to the provisions of paragraph 2 below, BA agrees to provide Unbundled Dark Fiber to NEVD as a Network Element pursuant to the same terms and conditions under which BA makes Unbundled Dark Fiber available to other Competitive Local Exchange Carriers ("CLECs"), in New Hampshire. Those terms and conditions are contained in BA's Unbundled Dark Fiber Service Description, as modified from time to time in BA's reasonable discretion subject to the jurisdiction of the New Hampshire Public Utilities Commission ("NHPUC"). A copy of the current Unbundled Dark Fiber Service Description is attached hereto as Exhibit DF.
2. BA agrees to provide Unbundled Dark Fiber to NEVD as a Network Element hereunder only to the extent that, and only for as long as, BA is required to do so pursuant to Order No. 22, 942 of the NHPUC in the Arbitration Regarding Request for Recognition of Dark Fiber as an Unbundled Network Element, DE 97-229 ("Order"), or such other explicit legal requirement as may subsequently be imposed. BA expressly reserves the right to appeal or otherwise seek to overturn the Order by any lawful means. At such time as the Order ceases to be binding on BA, BA may terminate its provision of Unbundled Dark Fiber hereunder on written notice to NEVD, subject to a reasonable transition period or such alternative arrangements as the parties may at that time negotiate.
3. The initial prices applicable to the provision of Unbundled Dark Fiber hereunder shall be those filed by BA with the Massachusetts Department of Telecommunications and Energy for approval, as indicated in the attached pricing schedule. Upon DTE approval of permanent prices for Unbundled Dark Fiber, the approved prices shall apply. In the event the NHPUC approves rates for Unbundled Dark Fiber, those rates shall supersede the Massachusetts rates for use in New Hampshire.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as of this 4th day of January, 1999.

NEW ENGLAND VOICE AND DATA, LLC BELL ATLANTIC - NEW HAMPSHIRE

By: _____

By: _____

Printed: _____

Printed: _____

Title: _____

Title: Vice-President - Interconnection
Services Policy & Planning

UNBUNDLED DARK FIBER

SERVICE DESCRIPTION

Bell Atlantic-New Hampshire

1.0 As a result of the New Hampshire Public Utilities Commission's Order No. 22, 942 in the Arbitration Regarding Request for Recognition of Dark Fiber as an Unbundled Network Element, DE 97-229 ("Order"), Bell Atlantic-New Hampshire (BA-NH) is required to offer dark fiber as an unbundled network element (UNE) to Competitive Local Exchange Carriers (CLECs) in New Hampshire. Unbundled Dark Fiber will be offered in New Hampshire to CLECs in the manner described herein in order to comply with the Order.

1.1 Unbundled Dark Fiber is defined as a continuous fiber optic strand within an existing, in place fiber optic cable sheath owned by BA-NH that a CLEC may access as provided in Section 1.2. Establishment of applicable fiber optic transmission equipment or intermediate repeaters needed to power the Unbundled Dark Fiber in order to transmit information is the responsibility of the CLEC. A strand is not considered continuous if splicing is required to provide fiber continuity between locations. If a fiber strand can be made continuous by joining fibers at existing splice points within the same sheath, BA-NH will perform such splicing at the CLEC's request on a tune and materials basis.

1.2 Unbundled Dark Fiber will be offered in New Hampshire to CLECs, subject to availability, solely for the purpose of their using the fiber as a transmission medium in the provision of telecommunications services. Unbundled Dark Fiber, where available, may be accessed from the CLEC's collocation arrangement at existing BA-NH hard termination points (e.g., fiber distribution frames, industry standard mechanical fiber connectors) or, as directed in the Order, at customer premises, or at outside plant remote terminal locations. Unbundled Dark Fiber will be offered in a minimum quantity of two (2) fibers, with additional increments of two (2) fibers between the same two (2) locations.

1.3 BA-NH will make available for lease existing, in-place, spare dark fiber as Unbundled Dark Fiber to CLECs under contractual agreements and on a "first come, first served" basis. Reservations are not accepted for Unbundled Dark Fiber. BA-NH will not construct new or additional facilities to satisfy a CLEC's request for Unbundled Dark Fiber.

1.4 The Bell Atlantic Telecom Industry Services Operations Center (TISOC) will be the single point of contact for all Unbundled Dark Fiber requests. The CLEC must submit a written request designating the two locations between which Unbundled Dark Fiber is desired and the quantity of Unbundled Dark Fiber pairs requested, the planned service offering, and the intended use of the requested Unbundled Dark Fiber to comply with the Order. Each request must specify two (2) locations only; additional locations will require additional requests. BA-NH provides Unbundled Dark Fiber, where available, between the following locations: 1) CLEC's collocation arrangements, 2) CLEC's collocation arrangement and end users' premises, and 3) CLEC's collocation arrangement and an outside plant remote terminal location.

Upon receipt of the CLEC's written request, BA-NH will initiate a review of its cable records to determine whether spare dark fiber may be available for lease as Unbundled Dark Fiber between the locations and in the quantities specified in the CLEC's request, subject to field verification as outlined in 1.8 below. BA-NH will respond within thirty (30) days from receipt of the CLEC's request, indicating whether Unbundled Dark Fiber may be available based on the records search, except that for voluminous requests or large, complex projects, BA-NH reserves the right to negotiate a different interval. BA-NH will also provide an

estimate of the applicable rates and charges for Unbundled Dark Fiber when the records indicate spare dark fiber may be available.

1.5 In order to maintain the integrity and reliability of the BA-NH network, BA-NH will reserve a reasonable quantity of fibers in any cable, depending upon the total number of fibers in the cable, to be designated as maintenance spares in order to effect emergency repairs or network rearrangements, but only as demonstrably necessary to meet its individual short-term service needs. These maintenance spares will not be available for lease as Unbundled Dark Fiber.

1.6 If the CLEC requests Unbundled Dark Fiber pairs that BA-NH has allocated for another customer (e.g., they have been installed or allocated to serve a particular customer in the near future), or for growth or survivability in a particular part of its network as demonstrably necessary to meet its individual short-term service needs, BA-NH shall not be required to lease such dark fiber pairs as Unbundled Dark Fiber.

1.7 If access to Unbundled Dark Fiber is not available, BA-NH will notify the requesting CLEC in writing within thirty (30) days from receipt of the CLEC's request. BA-NH will include the following in its written response to the CLEC, to comply with the NH Order the specific reason the request cannot be granted, the total number of fiber sheaths and strands between points on the requested routes, the number of strands currently in use and the transmission speed on each strand (e.g. OC-3), the number of strands in use by other carriers, the number of strands reserved for BA-NH's use, the number of strands lit in each of the three preceding years, the estimated completion date of any construction jobs planned for the next two years or currently underway, and an offer of any alternate route with available dark fiber. In addition, for fibers currently in use, BA-NH shall specify if the fiber is being used to provide non-revenue producing services such as emergency service restoration, maintenance, and/or repair. The CLEC will be billed a non-recurring charge for cable documentation per request to reimburse BA-NH for the costs incurred in providing the CLEC with the documentation described in this provision.

1.8 BA-NH makes no representation or warranty regarding the accuracy or completeness of its cable records. At the CLEC's option, per the terms of individually negotiated contracts, BA-NH will initiate a field survey to verify the availability of dark fiber pairs for lease as Unbundled Dark Fiber, and that such fiber pairs are not defective or have not been used by field personnel for prior emergency restoration activity. In addition, as part of the field survey, the fiber pairs requested by the CLEC will be tested by placing a light source on the individual fibers and measuring the end-to-end loss utilizing industry standard fiber optic test equipment. The test results will be documented and provided to the CLEC. The applicable rates and charges estimated in 1.4 will also be confirmed at the conclusion of the field survey, and the CLEC will be informed of any modifications to the preliminary rate quote. When a field survey is performed, the CLEC will be billed a non-recurring charge on a time-and-materials basis, regardless of the outcome of the survey. The interval for the field survey will be negotiated based upon the number of locations and quantity of fiber pairs requested. Should the CLEC wish to proceed in ordering Unbundled Dark Fiber based on the results of the field survey, the CLEC must place an order with the BA-NH TISOC. Unless and until an order is placed, the fiber identified in a field survey remains available to satisfy other requests.

1.9 Should the CLEC decline the field survey described in 1.8 above and place an order for Unbundled Dark Fiber based solely on the information contained in BA-NH's cable records, the CLEC assumes all risks of relying on such records including, but not limited to, revised rates and/or order cancellation charges if it is subsequently determined during the implementation process that Unbundled Dark Fiber is not available.

1.10 BA-NH's sole obligation is to provide Unbundled Dark Fiber, where available, that conformed to BA-NH standard transmission characteristics at the time the fiber was installed. It is the CLEC's responsibility to determine that the transmission characteristics of the Unbundled Dark Fiber provided by BA-NH will accommodate the CLEC's transmission requirements and loss budget. BA-NH will not re-terminate or re-splice fibers in order to improve the transmission characteristics of Unbundled Dark Fiber. Time-and-materials charges will apply if the CLEC requests BA-NH to re-test the fibers subsequent to the field survey described in 1.8 above. In cases where a field survey is declined by the CLEC, as described in 1.9 above, initial or subsequent testing of the fiber to determine actual transmission requirements will be performed at the CLEC's request on a time-and-materials basis. If the CLEC subsequently determines the Unbundled Dark Fiber provided by BA-NH is not suitable, the CLEC must submit a request to disconnect the Unbundled Dark Fiber.

1.11 The transmission characteristics of the Unbundled Dark Fiber cannot be guaranteed to remain constant over time. Cable restoration or network rearrangements that require additional field splices may result in additional loss being introduced. The CLEC assumes all risks associated with the unforeseen introduction of future splices.

1.12 When the CLEC places an order for Unbundled Dark Fiber, the CLEC will be billed a non-recurring service order charge for the initial pair of fibers between the two (2) locations specified in the CLEC's request. An incremental service order charge will apply for each additional pair of fibers between the same two (2) locations when ordered at the same time on a single request. In addition to the service order charge, appropriate time-and-materials charges will be billed to the CLEC to recover the work efforts involved with the initial review of BA-NH's records.

The CLEC will also be billed a monthly rate that consists of a fixed monthly charge per fiber pair, per serving wire center, and a monthly rate per fiber pair, per mile. The mileage used to determine the monthly rate for Unbundled Dark Fiber is based on airline mileage utilizing the Vertical and Horizontal (V&H) coordinate method between the locations to which the facility is provisioned. When the calculation results in a fraction of a mile, the mileage will be rounded up to the next whole mile before applying the rates. In all cases, a minimum of one mile shall apply.

1.13 In a BA-NH central office, BA-NH will provide Unbundled Dark Fiber hard termination at a fiber distribution frame (FDF). BA-NH will provide appropriate cross-connections at such FDFs to the collocation node. (Appropriate recurring monthly charges will apply: Service Access Charge (SAC) with physical collocation and Interconnection Access Charge (IAC) with virtual collocation.) In addition, when BA-NH provides intermediate cross connection(s) at a FDF in intermediate BA-NH central office(s) to accommodate a CLEC's request, an Unbundled Dark Fiber intermediate Cross-Connection recurring and non-recurring charge will apply.

1.14 BA-NH will not introduce additional splice points to accommodate a CLEC's request. All required provisioning work will be performed by BA-NH personnel using current BA-NH approved methods. Labor by BA-NH personnel will be charged at the same rates and take the same length of time for completion as similar work performed for BA-NH. All rights-of-ways, conduit, duct, and pole space for the CLEC-provided cable are to be secured by the CLEC at the CLEC's expense. To the extent any governmental or private property permit, easement, or other authorization or approval is required for access to Unbundled Dark Fiber, such as to open manhole covers, the CLEC is responsible for obtaining such permit, easement, or authorization.

1.15 When a fiber cable is connected, the "downstream" portion of the fiber may become unusable or stranded. In cases where interconnection at a remote terminal renders other portions of the fiber unusable or stranded, a recurring charge will apply per fiber pair, per mile, based on airline mileage utilizing the V&H coordinate method. When the calculation results in a fraction of a mile, the mileage will be rounded up to the next whole mile before applying the rates. In all cases, a minimum of one mile shall apply. BA-NH reserves the right to seek relief from its obligation if a request by a CLEC for lease of Unbundled Dark Fiber would strand an unreasonable amount of fiber capacity, or if a request for Unbundled Dark Fiber would result in service disruption or degradation to other customers or carriers.

1.16 In the event Unbundled Dark Fiber is leased to a CLEC, and the Unbundled Dark Fiber is no longer being used by the CLEC in the provision of telecommunications services, the Unbundled Dark Fiber will be resumed to BA-NH by the CLEC within 60 days.

1.17 In leasing Unbundled Dark Fiber, the CLEC accepts the environmental risks inherent in outside plant construction. In the event BA-NH must perform emergency cable restoration to its own facilities, all efforts will be made to restore the CLEC's leased Unbundled Dark Fiber pairs in the same manner as other fibers in the same cable sheath using BA-NH standard restoration procedures. Upon notification by BA-NH, the CLEC must also agree to cooperate with BA-NH for normal cable maintenance activity (e.g., cable rearrangements, etc.).

1.18 BA-NH will commence billing for Unbundled Dark Fiber (i.e., applicable non-recurring and recurring rates as described in Sections 1.1, 1.8, 1.10, 1.12, 1.13, 1.14 and 1.15) upon completion of the service order on the requested due date. The CLEC may request a change of service date for the Unbundled Dark Fiber request, but the revised service date may not exceed the original service date by more than 30 calendar days. BA-NH accordingly delays the start of service and the CLEC is charged a Service Date Change charge.

If the CLEC's requested revised service date is more than 30 calendar days after the original service date, or if the CLEC is unable to accept the Unbundled Dark Fiber within 30 calendar days of the original service date, the CLEC's order for the Unbundled Dark Fiber will be canceled by the TISOC representative on the 31st day with the appropriate Cancellation Charges as defined in Section 1.19. In addition, the pairs requested on the canceled orders) will not be reserved for the CLEC and will be returned to available inventory.

1.19 Cancellation charges billed to the CLEC include appropriate service order charges in addition to any time-and-materials charges for installation work performed and other expenses incurred on behalf of the CLEC's request(s) up to and including the day the cancellation is received or the order is canceled by BA-NH per the terms of Section 1.18.

1.20 Disputes about the availability of Dark Fiber shall be resolved using a fast track arbitration process as described in the Order.

TIME & MATERIALS BILLING
(When Applicable)

WORK GROUP	USOC	WORK FUNCTION				
		Field Survey (Par. 1.8)	Testing (Par. 1.10)	Splice (Par. 1.1)	Records Review (Par. 1.12)	Cross- Connections (Par. 1.13)
NTE ¹ Planning	TM1DA	X	X	X	X	
NTE ¹ Design	TM1DB	X	X	X	X	
NTE ¹ Technician	TM1DC	X	X	X	X	
C.O. Frame Technician	TM1DD	X	X			X

Exhibit 1

¹ NTE - Network Transport Engineering (Used generically to represent all outside plant work groups involved in the planning, design, and implementation of fiber optic cable.)

New Hampshire - Dark Fiber Price Schedule

Line

NRC

1	Service Order:	Initial Pair - Per 'A' - 'Z' Point	\$ 23.63
2		Each Add'l Pair - same 'A' - 'Z' Point	\$ 21.48
3	Cable Documentation:	Per Request	\$ 30.26

Monthly Recurring

4	Fixed Cost per Serving Wire Center:	Per Pair	\$ 11.97
5	Fiber per Mile:	Per Pair	\$ 65.38
6	Intermediate C.O. Cross-Connection:	Per Pair	\$ 19.70
7	Unusable Fiber Strands per Mile:	Per Pair	\$ 45.92

Exhibit 1C

185 Franklin Street, Room 1403
Boston, MA 02110
Tel (617) 743-6744
Fax (617) 737-0648

Keefe B. Clemons
Regulatory Counsel

April 22, 1999

Ms. Luly Massaro
Commission Clerk
Rhode Island Public Utilities Commission
100 Orange Street
Providence, RI 02903

Re: *First Amendment to Rhode Island Interconnection Agreement*
Bell Atlantic-Rhode Island and New England Voice and Data LLC

Dear Ms. Massaro:

In accordance with Section 5.a. of the Commission's *Rules Governing Arbitration, Mediation, Review and Approval of Interconnection Agreements*, New England Telephone and Telegraph Company, d/b/a Bell Atlantic-Rhode Island ("BA-RI"), hereby files a First Amendment to the above-referenced Interconnection Agreement between BA-RI and New England Voice and Data, LLC ("NEVD") dated as of March 10, 1999, and petitions the Commission for approval of the amended Agreement pursuant to Section 252(e) of the federal Communications Act, as amended by the Telecommunications Act of 1996 ("Act"), 47 U.S.C. § 252(e).

The contact person for NEVD is Mr. Scott Sawyer. Mr. Sawyer's address and telephone number are:

New England Voice and Data, LLC
3 Regency Plaza
Executive Office Suites
Providence, RI 02903
(401) 854-2372

Thank you for your attention to this matter. Should you have any questions regarding this matter, please contact either Mr. Sawyer or me.

Respectfully submitted,

Keefe B. Clemons

Enclosures

FIRST AMENDMENT
to
INTERCONNECTION AGREEMENT
between
NEW ENGLAND VOICE AND DATA, LLC
and
BELL ATLANTIC - RHODE ISLAND

This First Amendment is entered into this 10th day of March, 1999, by and between New England Voice and Data, LLC ("NEVD"), with offices at 222 Richmond Street, Suite 206, Providence, Rhode Island 02903, and New England Telephone and Telegraph Company, d/b/a Bell Atlantic-Rhode Island ("BA"), a New York corporation with offices at 185 Franklin Street, Boston, Massachusetts 02110.

WHEREAS NEVD and BA ("the Parties") entered into an Interconnection Agreement dated September 30, 1998 (the "Rhode Island Agreement"); and

WHEREAS NEVD has claimed the right, pursuant to Section 29.14 of the Agreement, to take Dark Fiber from BA in Rhode Island based on the interconnection agreement between NEVD and Bell Atlantic-Massachusetts dated October 21, 1998, as amended (the "Massachusetts Agreement"); and

WHEREAS the Parties now desire to amend the Rhode Island Agreement to set forth the rates, terms and conditions under which BA will provide Dark Fiber to NEVD in Rhode Island;

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, NEVD and BA hereby agree to amend the Rhode Island Agreement as follows:

1. Provision of Dark Fiber. BA agrees to provide Dark Fiber to NEVD in Rhode Island subject to the terms and conditions set forth below.
2. Rates, Terms and Conditions. The Parties agree to negotiate in good faith the rates and charges, and the specific terms and conditions, that will govern BA's provision of Dark Fiber to NEVD in Rhode Island. Absent such agreement, and except as may otherwise be ordered by the Rhode Island Public Utilities Commission, the rates, charges, terms and conditions applicable to Dark Fiber under the Massachusetts Agreement shall apply between the Parties in Rhode Island.
3. Disclaimer. Nothing herein shall be construed to be an admission or concession by BA that it has any independent legal obligation to provide Dark Fiber to any requesting carrier pursuant to 47 U.S.C. § 251(c)(3), in Rhode Island or elsewhere.
4. Termination. BA agrees to provide Dark fiber to NEVD hereunder only to the extent that, and only for as long as, BA is required to do so pursuant to the Massachusetts Agreement and Section 29.14 of the Rhode Island Agreement. At such time as the Massachusetts Agreement ceases to be binding on BA, or ceases to require BA to provide Dark Fiber in Massachusetts, then BA may terminate its provision of Dark Fiber in Rhode Island hereunder on written notice to NEVD, subject to a reasonable transition period or such alternative arrangements as the parties may at that time negotiate.

5. Reservation of Rights. Notwithstanding this Amendment, NEVD reserves the right to renew its bona fide request for dark fiber as a network element in Rhode Island or to file an appropriate motion with the Rhode Island Public Utilities Commission or the FCC seeking a declaration that dark fiber is, or should be, an unbundled network element. NEVD further reserves the right to negotiate with BA concerning the continued provision of dark fiber in a successor interconnection agreement for Rhode Island.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as of this 10th day of March, 1999.

NEW ENGLAND VOICE AND DATA, LLC BELL ATLANTIC - RHODE
ISLAND

By: _____

By: _____

Printed: _____

Printed _____

Title: _____

Title: Vice-President - Interconnection
Services Policy & Planning

Exhibit 2

Document not available in electronic form.